

AMENDMENTS TO THE CLAIMS

WHAT IS CLAIMED IS:

1. (Currently Amended) An electro-luminescence display device comprising:

R, G and B cells having different light-emission efficiencies;

a data converter having a look-up table inputted with Red, Green and Blue N-bit digital data signals having a same gray scale value, the data converter converting the Red, Green and Blue N-bit digital data signals into Red, Green and Blue M-bit digital data signals respectively, referring to the look-up table, wherein each of N and M is an integer, M is greater than N, and each gray scale values of the Red, Green and Blue M-bit digital data signals corresponds to a gray-scale number are different from each other;

a gamma voltage generator generating a plurality of gamma voltages ~~based on the gray scale numbers for~~ and converting the Red, Green and Blue M-bit digital data signals into Red, Green and Blue analog data signals, respectively; and

a data driving circuit transferring the Red, Green and Blue analog data signals to respective Red, Green and Blue pixels.

2. (Currently Amended) The ~~flat-panel~~ electro-luminescence display device according to claim 1, further includes a timing controller outputting the Red, Green and Blue N-bit digital data signals to the data converter.

3. (Currently Amended) The ~~flat-panel~~ electro-luminescence display device according to claim 1, wherein the data driving circuit includes the gamma voltage generator.

4. (Cancelled)

5. (Currently Amended) The ~~flat-panel~~ electro-luminescence display device according to claim [[4]] 1, wherein the gray scale ~~number~~ value of the Red M-bit digital data signal is greater than the gray scale ~~numbers~~ values of the Green and Blue digital data signals.

6. (Currently Amended) The ~~flat-panel~~ electro-luminescence display device according to claim 5, wherein the gray scale ~~number~~ value of the Green M-bit digital data signal is greater than the gray scale ~~number~~ value of the Blue digital data signal.

7. (Currently Amended) The ~~flat-panel~~ electro-luminescence display device according to claim 3, wherein the Red analog video signal applied to the respective pixel has a voltage level ranged in about 0V to about 5V.

8. (Currently Amended) The ~~flat-panel~~ electro-luminescence display device according to claim 7, wherein the Green analog data signal applied to the respective pixel has a voltage level ranged in about 0V to about 2.5V.

9. (Currently Amended) The ~~flat-panel~~ electro-luminescence display device according to claim 7, wherein the Blue analog data signal applied to the respective pixel has a voltage level ranged in about 0V to about 1.9V.

10. (Currently Amended) The ~~flat-panel~~ electro-luminescence display device according to claim 1, wherein each of the pixels is an electro-luminescence cell.

11. (Currently Amended) A method of driving an electro-luminescence display device including R, G and B cells having different light-emission efficiencies, the method comprising:

receiving Red, Green and Blue N-bit digital data signals ;

converting the Red, Green and Blue N-bit digital data signal having a same gray scale value into Red, Green and Blue M-bit digital data signals, respectively, wherein each of N and M is an integer, M is greater than N, and ~~each~~ gray scale values of the Red, Green and Blue M-bit digital data signals ~~corresponds to a gray-scale number~~ are different from each other;

converting the Red, Green and Blue M-bit digital data signals into Red, Green and Blue analog data signals, respectively; and

applying the Red, Green and Blue analog data signals to respective Red, Green and Blue pixels.

12. (Cancelled)

13. (Currently Amended) The method according to claim[[12]] 11, wherein the gray scale ~~number~~ value of the Red M-bit digital data signal is greater than the gray scale ~~numbers~~ values of the Green and Blue digital data signals.

14. (Currently Amended) The method according to claim 13, wherein the gray scale ~~number~~ value of the Green M-bit digital data signal is greater than the gray scale ~~number~~ value of the Blue digital data signal.

15. (Currently Amended) The method according to claim 11, the step of converting the Red, Green and Blue M-bit digital data signals into Red, Green and Blue analog data signals further includes:

generating a plurality of different gamma voltages ~~based on the gray scale numbers~~ using a gamma voltage generator.

16. (Original) The method according to claim 15, wherein the Red analog data signal applied to the respective pixel has a voltage level ranged in about 0V to about 5V.

17. (Original) The method according to claim 15, wherein the Green analog data signal applied to the respective pixel has a voltage level ranged in about 0V to about 2.5V.

18. (Original) The method according to claim 15, wherein the Blue analog data signal applied to the respective pixel has a voltage level ranged in about 0V to about 1.9V.

19. (Original) The method according to claim 11, wherein each of the pixels is an electro-luminescence cell.

20-28. (Cancelled)